

Long Range Water Planning for Economic Development

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Director Wichita Facilities & Product Assurance

Save some for our future

2006 2006 2006 2006 2006



Spirit Wichita



- 11.2 million square feet



- +10,000 employees




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We Build Aero Structures

- Headquartered in Wichita, Kansas, Spirit has operations in 6 countries, on 3 continents.
- It takes over 1 million gallons of highly purified water to produce a single fuselage.



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Water and Spirit

- Spirit buys 600 million gallons of water from the City of Wichita each year.
- Water cost is nearly 2 million dollars annually.
- 70% of purchased water is utilized for manufacturing and industrial purposes.
- Spirit recycles all manufacturing wastewater.


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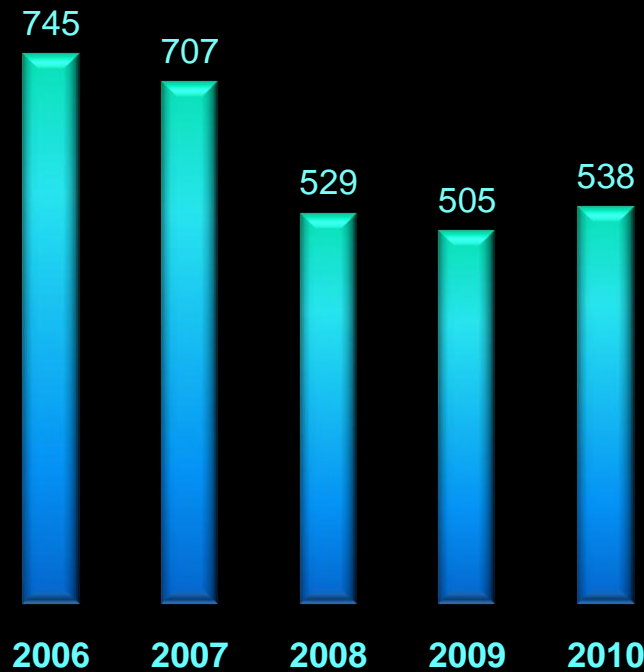
Water Planning Objectives

- Reinforce Spirit's commitment to conservation and corporate responsibility by eliminating the use of potable water for industrial purposes.
- Establish a sustainable water reuse (grey water) program with the city that is mutually beneficial to Spirit and the community for the long term.


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Water Usage History

MGAL'S

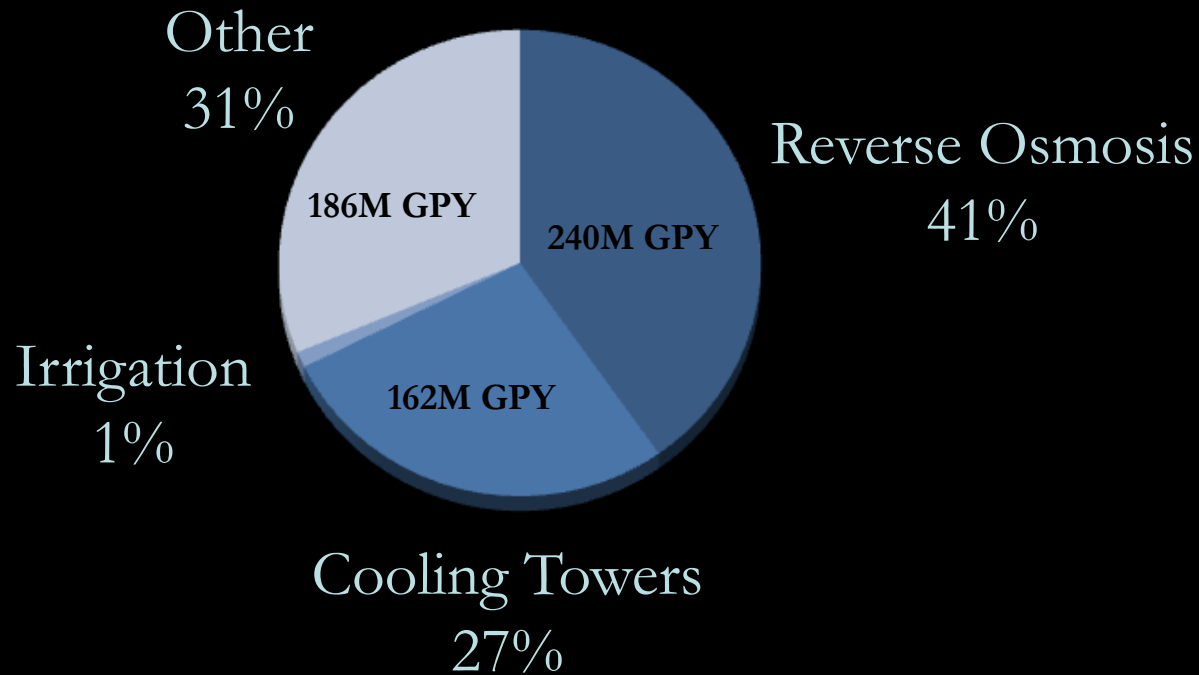


A 33% reduction in water consumption from 2006 to 2009 reserved enough water to supply 1667 homes in the Wichita area.
(Over 20 MGPM)

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Water Usage History



Total usage = 600M Gallons Per Year (GPY)

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Water Conservation Efforts

- Spirit Wichita is currently one of the largest recyclers of industrial wastewater in North America.
- A multifunctional task team was established in 2006 to specifically target water usage issues.




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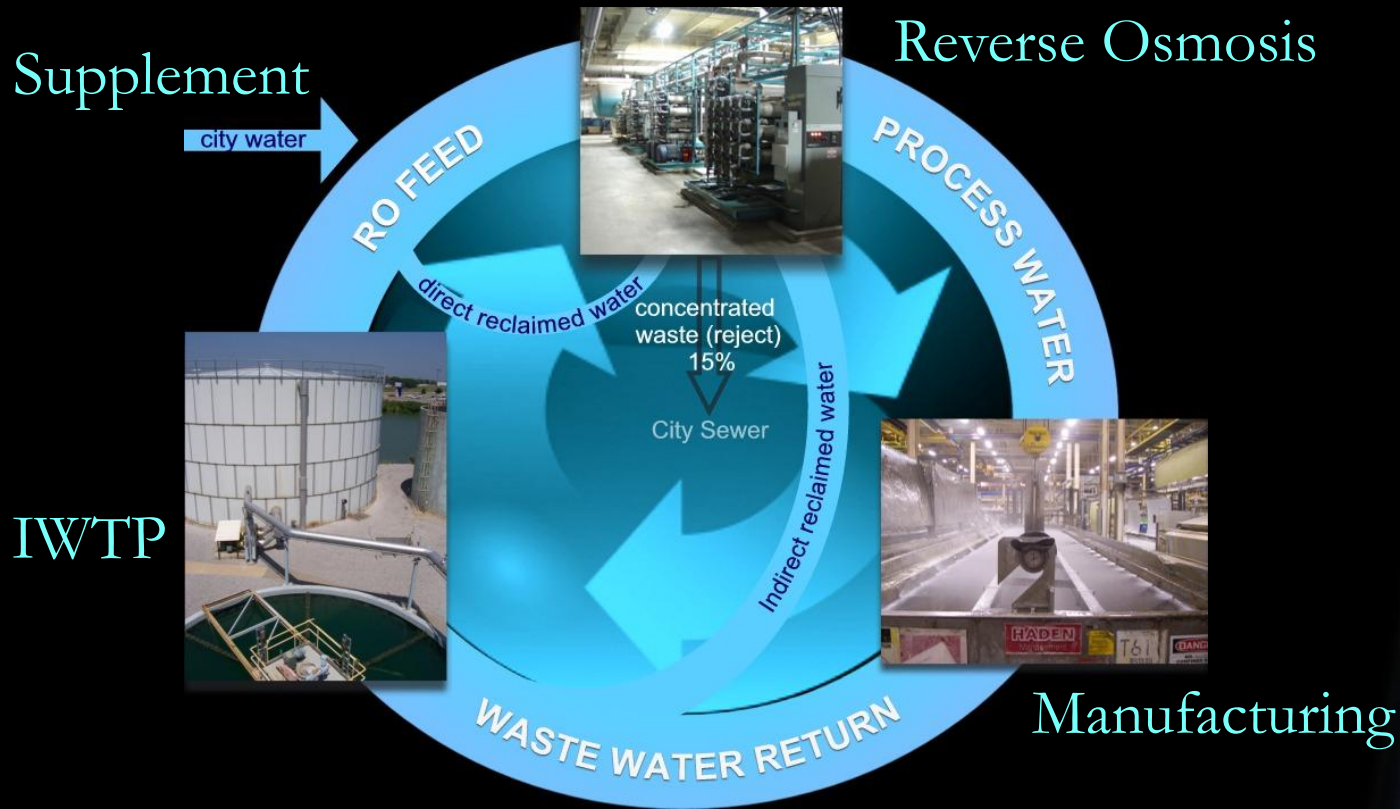
Grey Water is Key

- Spirit and the city of Wichita are studying the viability of piping treated waste effluent to the Spirit campus for industrial use.
- This “Purple Pipe” project has the potential to reduce Spirit’s domestic water consumption by as much as 70 percent.



X 2,916

Water Recycling Program



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Recycling industrial wastewater cuts our water bill by \$1.8 M annually and reserves water for 4,000 homes per month in the community.

Water Usage Surveillance



Cooling Towers



Reverse Osmosis

Water usage is measured and monitored closely at specific points of usage.


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Successes to Date

- Spirit Wichita has successfully recycled seven billion gallons of water since 1998. That is enough water to fill 68 Intrust Bank Arenas!



X 68


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Long Term Availability

- Important to community and commerce.
- Essential to aero structures manufacturing.
- Impacts profitability.
- Vital to quality of life.


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Lessons Learned

- Grey water is essential to economic development.
- Adopting good water conservation practices at work and at home are a good start.
- Communicate the benefits of conservation with employees.
- Establish a water conservation team in your workplace.
- Practice benchmarking and share best practices.


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Working Together

- It will take all of us working together to ensure water availability, cost reduction, and profitability in our businesses for the long term.
- Staying focused on what we can do in cooperation with the city, community, and industries to promote gray water supply will ensure fresh water availability and aid in executing a long range plan for economic development.

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